



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/020,447	12/18/2001	Thomas D. Fletcher	2207/11269	1709

23838 7590 08/11/2006

KENYON & KENYON LLP  
1500 K STREET N.W.  
SUITE 700  
WASHINGTON, DC 20005

EXAMINER

MAI, TAN V

ART UNIT	PAPER NUMBER
----------	--------------

2193

DATE MAILED: 08/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.



Art Unit: 2193

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 10, 13, 17 and 19 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Ware (US Pat. 4,623,982).

Rejection grounds continue to be those set forth in the previous office action dated 12/15/04, paragraph 5.

3. Claims 14 and 22-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ware (US Pat. 4,623,982).

Rejection grounds continue to be those set forth in the previous office action dated 12/15/04, paragraph 8.

4. Claims 11 and 18 rejected under 35 U.S.C. 103(a) as being unpatentable over Ware in view of Vo et al (US Pat. 4,737,92).

Rejection grounds continue to be those set forth in the previous office action dated 12/15/04, paragraph 10.

5. Applicants' arguments filed on 5/8/06 have been fully considered but they are not persuasive.

Applicants, in his remarks, argues that:

- (1). “[w]ith respect to claim 10, it is noted that a carry generation block is to determine exactly three of the carry-out values. A carry-out value is defined earlier in the claim as being determined for each propagate value based on the propagate value and the corresponding generate value. Accordingly, three carryout values being generated by a carry generation block would require three propagate values. The current Office Action provides a marked up version of Fig. 3A from Ware. Of course, Ware describes the entire circuit of Figure 3A as a “block” with three individual cells (i.e., a start cell, a continue cell, and an end cell). In the drawing, the selective parts of the circuit are circled and denoted as a “carry generation block.” Applicant respectfully disagrees. If C IN 0 (1), C IN 1 (1), and C IN (1) are to be denoted as carry-out values, then according to the claim, each carryout value would be determined for each propagate value based on the propagate value and the corresponding generate value. Looking at the circled circuit of Fig. 3A, propagate signal P(1) is an “input” to this denoted circuit. No other propagate signals would be inputs to this denoted circuit. Accordingly, the circuit labeled “carry generation block does not generate three carry-out values, each being determined for each propagate value as recited in claim 10. Likewise, claim 17 recites a carry generation block that is connected to exactly three of the propagate outputs and three of the generate outputs, and the “carry generation block” has a plurality of carry outputs. As indicated above, the circuit labeled “carry generation block” has only one propagate input, not three”; and
- (2) “[a]s to the rejection of claims 11 and 18 under 35 U.S.C. 103(a), Vo fails to make up for the deficiencies of Vo. In Vo, each individual bit adder 61 in Fig. 5 is to take in two bits to add and a carry in from the previous bit adder and generate a carry out for the next bit adder. There is no disclosure in Vo or Ware of a carry generation block that determines exactly six of the carry out values as described in claims 11 and 18” (emphasis added).

With respect to the arguments, the examiner carefully reviews claimed invention and the applied references.

First, the examiner believes Ware teaches the claimed invention. See the copy of Applicant's claim 10 with Ware below:

10. A method of adding two multi-bit addends, the method comprising:
- receiving two multi-bit addends **[Ware's Fig. 3B; A0-8, B0-8]**;
  - determining a propagate value **[Ware's Fig. 3A; K(i)]** and a corresponding generate value **[Ware's Fig. 3A; G(i)]** for each bit of the addends;
  - determining a carry-out value **[Ware's Fig. 3A; C IN (i)]** for each propagate value **[K(i)]** based at least in part on the propagate value **[K(i)]** and corresponding generate value **[G(i)]**, wherein the carry-out values **[C IN (i)]** are determined by a plurality of carry generation blocks **[e.g., see Ware's Fig. 3B; three blocks]**, and wherein one of the carry generation blocks **[e.g., see Ware's Fig. 3B; middle block]** determines exactly three of the carry-out values **[e.g., see Ware's Fig. 3B middle block or Fig. 3A]**; and
  - determining a sum value **[e.g., see Ware's Fig. 3A; SUM (1) output of EX-OR gate (40)]** for each carry-out value based at least in part on the carry-out value.

It is noted that Applicant's Propagate value P(i) is the same as Ware's Propagate value K(i), e.g., see Ware, col. 1, lines 44-53. Also, it is noted that Applicant's Propagate value P(i) and Ware's Propagate value K(i) are the outputs of **OR gates**.

Second, **(1)** Vo et al disclose, e.g., see Fig. 5, a plurality of variable block adders, i.e., the sizes are two to six bit and **(2)** Ware discloses, e.g., see Figs. 3-4, a

Art Unit: 2193

plurality of variable block adders, i.e., the sizes are two to four bit. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine Vo in Ware, thereby making the claimed invention, because the proposed device is a carry look-ahead adder having different block sizes as claimed.

Therefore, the rejections are still proper.

6. Claims 12, 15-16, and 20-21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is an examiner's statement of reasons for allowance: the recorded references do NOT teach or suggest the amended features as recited in independent claims 32 and 37.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Art Unit: 2193

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tan V. Mai whose telephone number is (571) 272-3726. The examiner can normally be reached on Mon-Wed and Fri. from 9:30am to 2:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki, can be reached on (571) 272-3719. The fax phone number for the organization where this application or proceeding is assigned is:

Official (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2100.



Tan V. Mai  
Primary Examiner

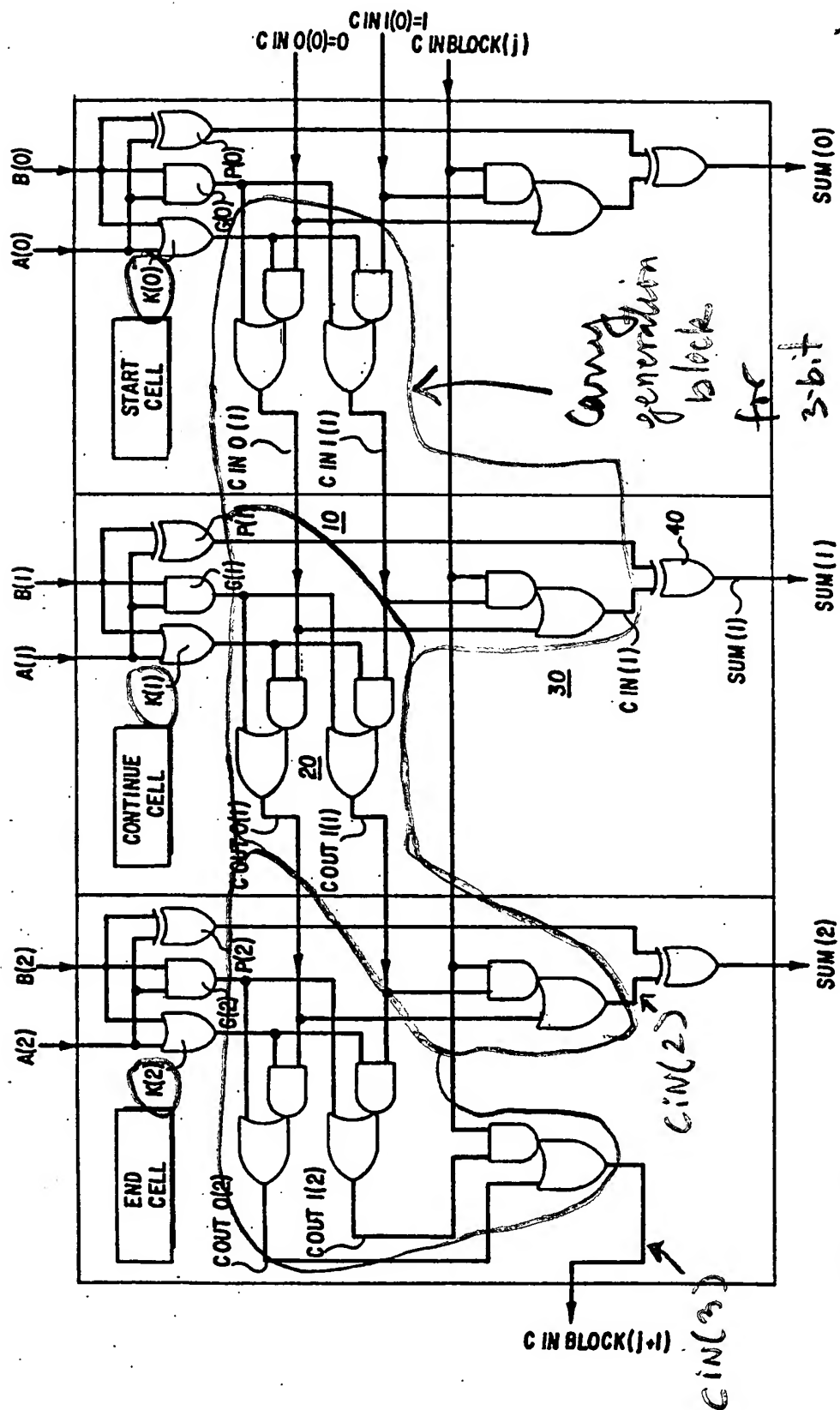


FIGURE 3A